



## An evaluation study of service quality on tourist satisfaction at villas through digital communication

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ARTICLE INFO	ABSTRACT
<p><i>Keywords:</i> digital communication service satisfaction evaluation tourists villa Bali</p>	<p>This study uses digital communication to evaluate service quality and its impact on tourist satisfaction at Villa Uluwatu. Combining qualitative and quantitative methods, data were gathered through interviews and observations, then analyzed using data adequacy, validity, and reliability tests, Service Quality analysis, and the Customer Satisfaction Index (CSI). Results show an 80% satisfaction rate, with weaknesses found in tangibles, reliability, responsiveness, assurance, and empathy. No attribute emerged as a strength. Key areas for improvement include parking facilities, employee appearance, service speed, housekeeping responsiveness, and administrative ease. The study recommends enhancing these aspects to boost tourist satisfaction and maintain market competitiveness.</p>

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## Introduction

The increasingly intense global industrial competition, driven by globalization, presents new challenges. Indonesia, currently in a phase of financial recovery, is poised to face international competition. As a result, each business must streamline its performance to compete effectively. The entry of foreign businesses into the market raises service standards and tourist expectations, further intensifying the already tight competition among businesses. Companies are now striving to enhance their services and add value to their products to make them more appealing to tourists. Villas, as leading business entities in the tourism sector, must implement well-directed and organized marketing management strategies to ensure their products or services are well received by tourists. This approach will help ensure that outcomes remain aligned with the primary objective of generating profit.

Aligned with this digital transformation, the Indonesian government under the new presidential leadership has launched a national technology-based program for sustainable tourism. This policy seeks to reduce reliance on conventional practices that are often less responsive to the needs of sustainable tourism. The government-initiated sustainable tourism transformation program supports the use of digital communication technology as an integral component of modernizing tourism. This program focuses on strengthening smart service aspects, including satisfaction and quality of service for tourists through digital communication. Services provided by villas to tourists include employees' ability to deliver information, good product reputation, employee courtesy (assurance), strong employee-tourist relationships, consistent communication with tourists, and attentiveness to understanding tourist needs (empathy), as well as the employees'

appealing appearance and strategic location. However, a decline in tourist services was observed, likely due to the emergence of many competing new villas that became alternative choices for tourists. Some of these competitors may offer better service quality than Villa Uluwatu.

Nonetheless, there are still numerous challenges in implementing digital communication in sustainable tourism, particularly concerning limitations in digital infrastructure. According to research by Hartono et al. (2022), there remains a significant digital divide between urban and rural areas, which affects the slow adoption of digital technologies in the tourism sector. Furthermore, local tourism managers' awareness of the long-term benefits of sustainable tourism through digital communication remains limited. Therefore, this study aims to examine how the application of digital communication in sustainable tourism—specifically in evaluating and assessing service quality for tourists—can be effectively integrated within the Indonesian context, particularly in alignment with the new president's policies. By utilizing digital communication technologies, the goal is to enhance the quality of tourist services in a more efficient, environmentally friendly, and future-oriented manner. This study will also analyze various case studies of digital communication implementation as references for application in Indonesia.

Based on the available data, Villa Uluwatu previously failed to meet its tourist target, reaching only 89.83% of the intended goal. In addition, the increase and decrease in tourist numbers were inconsistent and fluctuated monthly due to various factors. Data collected through a questionnaire distributed to villa tourists yielded 67 valid responses. Of these, 43 were male users, accounting for 62.5% of tourists, while 24 were female users, accounting for 37.5%. Sustainable tourism faces

several challenges, including operational efficiency and resource management, as exemplified by Villa Uluwatu. Although the potential of digital communication technology to support sustainable tourism is widely acknowledged, its implementation remains limited in some sectors. The key question is how the application of digital communication can be optimally integrated into Villa Uluwatu's tourism processes to create tourist services that are efficient, friendly, and informative. This study aims to examine the implementation of digital communication technology to improve the quality of tourist services, starting from villas as the frontline of sustainable tourism.

## Method

This study employs a combination of qualitative and quantitative methods, including field studies in several villa divisions that have implemented or plan to implement digital communication. Data collection techniques include surveys and interviews with management, staff, and tourism industry stakeholders to understand the benefits, challenges, and expectations associated with digital communication. Case studies of villas that have successfully adopted digital communication in tourism, as well as a literature review of relevant articles, journals, and reports, are also utilized. Through this comprehensive approach, the study aims to provide practical recommendations to support sustainable tourism through digital communication technologies.

Quantitative data, collected in numerical form, are used to measure service quality and tourist satisfaction through the distribution of questionnaires with rating scales from 1 to 5. The analysis also includes the number of positive and negative responses in tourist feedback.

To achieve the research objective of examining the application of digital communication technologies across the full cycle of sustainable tourism—from services to operational completeness—appropriate methodologies and relevant data are essential.

This study adopts a mixed-methods approach to gain a comprehensive understanding. The qualitative component explores experiences and the implementation of digital communication technologies from the perspective of practitioners, while the quantitative component focuses on measuring the impact of digital communication on service efficiency and tourism sustainability.

### *a. Qualitative (Case Study)*

Case studies are conducted in various locations that have implemented digital communication. In-depth interviews with tourists, managers, and staff are used to explore their experiences and perspectives.

### *b. Quantitative (Survey and Field Data Collection)*

Structured questionnaires are used to collect data on improvements in tourist services, efficiency, and sustainability resulting from digital communication practices.

Field experiments are also conducted to directly test the application of digital communication throughout the tourism cycle. These experiments help verify the effectiveness of digital communication technologies, from service delivery to management.

### *a. Interviews and Observations*

Data is gathered through interviews with stakeholders at various stages of the tourism process.

Direct observation is conducted to examine how digital communication

technologies are applied, including data collection on the use of digital tools, big data, and other technologies in service delivery.

*b. Literature Review*

Industry reports: Data on the implementation of digital communication in tourism are gathered from industry and government publications.

Digital communication data: Information collected from digital communication devices and systems.

Productivity and efficiency data: Service data from systems that use digital communication, including changes in service quality and digital communication usage.

## Results and Discussion

The findings of this study highlight an evaluation of tourist service quality within a sustainable tourism system, emphasizing satisfaction and service quality supported by digital communication.

The analysis using the Cartesian diagram clearly identified which service attributes fell into each quadrant. The groupings are as follows:

### *Quadrant A*

This quadrant represents attributes that significantly influence the satisfaction of lodging customers at Villa Uluwatu. These attributes are considered important by customers, yet their performance is still unsatisfactory. Therefore, they should be prioritized for improvement. The attributes in this quadrant include:

- \* Adequate parking space
- \* Employee appearance
- \* Promptness of staff in serving villa guests
- \* Promptness of housekeeping staff in responding to guest needs
- \* Ease of administrative procedures

### *Quadrant B*

This quadrant includes attributes that influence customer satisfaction and are performing well according to customer expectations. These should be maintained to ensure continued satisfaction. The attributes in this quadrant are:

- \* Cleanliness of the villa
- \* Room pricing
- \* Accessibility of information services
- \* Managerial responsibility in service processes
- \* Accuracy of staff in providing updated information
- \* Ability of staff to provide individualized service that aligns with the value paid by customers
- \* Ease of contacting villa management

### *Quadrant C*

This quadrant contains attributes that are considered less important by customers and whose performance is deemed average or sufficient. These include:

- \* Speed of general villa service
- \* Courtesy of villa staff in serving guests
- \* Staff willingness to accept customer feedback

### *Quadrant D*

This quadrant includes attributes whose performance is rated very high, but which customers consider relatively unimportant. These may reflect overperformance in areas with low perceived importance. The attributes in this quadrant are:

- \* Availability of facilities and infrastructure
- \* Speed of staff in delivering information
- \* Staff politeness in correcting guest mistakes
- \* Guests' sense of security in leaving belongings in their rooms

- \* Guests' sense of safety when parking their vehicles in designated areas

Following validity and reliability testing, the next stage in this research was to determine the overall level of satisfaction among the sample group of 67 tourists.

To implement this concept, a comprehensive analysis is required, encompassing qualitative and quantitative assessments as well as evaluation of measurement and calculation results.

*Thematic analysis:* Identifying key themes from interviews and observations. These may include implementation challenges, perceived benefits, and innovations driven by digital communication technology.

*Coding and categorization:* Interview transcripts and observation notes are coded and categorized to uncover common patterns in the use of digital communication within each quadrant.

*Descriptive statistics:* Descriptive statistics are used to depict data distribution related to tourist services, service efficiency, and quality improvements resulting from the application of digital communication.

*Regression and correlation analysis:* This is used to evaluate the relationship between digital communication technology usage and improvements in service quality, resource utilization, and service efficiency. Correlation can be measured to understand the impact of digital communication on sustainability variables.

*Time series analysis:* By collecting villa-related data over a specific period, time series analysis is conducted to examine changes in service levels, resource consumption, or energy usage over time.

*Cost-benefit analysis:* This analysis assesses the cost of implementing digital communication technology compared to the benefits generated throughout the tourism cycle,

including improvements in tourist services and environmental sustainability.

### ***Evaluation of measurement and calculation results***

Comparison with traditional practices: Data from villas implementing digital communication are compared with those using conventional practices to evaluate the effectiveness and efficiency of digital communication in enhancing service quality, improving efficiency, and minimizing environmental impact.

Policy recommendations and best practices: Based on the analysis results, recommendations are provided to improve tourist services, guide technology providers, and inform policymakers on optimal ways to implement digital communication across all quadrants of villa operations.

This approach aims to provide a comprehensive overview of the implementation of digital communication in sustainable tourism at villas through the evaluation of tourist service quality.

## **Conclusion**

Based on data analysis and discussion regarding the use of digital communication to improve the quality of tourist services, several conclusions can be drawn from this study conducted at Villa Uluwatu.

The Customer Satisfaction Index (CSI) shows a satisfaction rate of 80%. However, based on interpretation tables, this percentage indicates a concerning level of satisfaction, suggesting that the company must improve its services. Given the highly competitive hospitality sector in Bali—evident from the rapid growth of new villas—Villa Uluwatu must aim to reach or approach 100% satisfaction to remain competitive.

Villa Uluwatu exhibits weaknesses across several service quality dimensions:

tangibles, reliability, responsiveness, assurance, and empathy. No particular attribute stands out as a competitive advantage. To enhance tourist satisfaction, significant improvements are needed in service delivery, employee responsiveness, knowledge, and individualized attention.

According to the Cartesian diagram analysis, priority service factors for improvement include all attributes classified under Quadrant A: adequate parking space, staff appearance, employee speed in serving guests, housekeeping responsiveness to guest needs, and ease of administrative procedures.

Based on the findings, several recommendations are proposed to improve tourist satisfaction and service quality:

- \* Physical improvements to villa facilities
- \* Enhancing service speed and reliability
- \* Continuous monitoring and evaluation
- \* Strategic use of digital communication for promotion, resource efficiency, and performance monitoring

This research proposes a conceptual framework for utilizing digital communication in evaluating and enhancing tourist service quality, comprising:

- \* Smart marketing: engaging, informative promotional content
- \* Smart service: efficient resource management in service delivery
- \* Smart monitoring: systematic evaluation of service quality

Digital communication technologies enable the development of more efficient, environmentally friendly, and globally responsive tourism systems. They offer opportunities to integrate services, communication tools, and digital platforms into a unified system that monitors and optimizes service processes for sustainable tourism.

The integration of digital communication across the entire service cycle—from marketing to post-visit engagement—enhances operational efficiency. Data analysis plays a vital role in supporting strategic decision-making within this integration. This study also reviews various case studies of digital communication implementation in other sectors to inform and guide its application in villa operations.

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## Declaration of Ownership

This article is our original work.

## Conflict of Interest

There is no conflict of interest to declare in this article.

## Ethical Clearance

This study was approved by the institution.

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